

Claims

1. Method for coding positions of data elements in a data structure,
5 where

position codes are associated with the data elements in a pre-
determined sequence,
characterized in that

- the position codes are selected in such a way that, if the
10 lengths of the position codes are unlimited, any desired number
of other position codes can be allocated for positions of other
data elements between the positions of two data elements in order
to code positions of other data elements,
- the position codes represent rational numbers.

15 2. Method for coding positions of data elements in a data structure,
where

position codes are associated with the data elements in a pre-
determined sequence,

20 characterized in that

- the position codes are selected in such a way that other position
codes can be allocated for positions of other data elements
between the positions of two adjacent data elements in order to
code positions of other data elements, at least one other
25 position code being longer than the longest of the position codes
of the two adjacent data elements,
- the position codes represent rational numbers.

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3. Method according to Claim 1 or 2,
characterized in that the first and/or last position code of the
data elements are selected in such a way that other position codes
25 can be inserted before the first and/or after the last position
code.

4. Method according to Claim 3,
characterized in that the first position code is not equal to zero
30 and/or the last position code is not equal to one.

5. Method according to one of the preceding claims,
characterized in that the position codes comprise binary data.

35 6. Method according to Claim 5,
characterized in that the position codes comprise one or more data

bit n-tuples and one or more extension bits, the quantity of the extension bits corresponding to the quantity of the data bit n-tuples.

- 5 7. Method according to one of the preceding claims,
characterized in that the data structure forms part of a data tree.
8. Method according to one of the preceding claims,
characterized in that the data elements comprise data codes for the
10 data elements of a document.
9. Method according to Claim 8,
characterized in that the document is an XML document.
- 15 10. Method according to Claim 8 or 9,
characterized in that the data codes for the document are generated
with an MPEG coding method.
11. Method according to Claim 10,
20 characterized in that the coding method comprises a standardized
MPEG-7 coding method.

12. Device for coding positions of data elements in a data structure,
characterized in that a method according to one of the preceding
5 claims can be carried out with the device.

13. Device for decoding position codes of data elements in a data
structure,
characterized in that the position codes coded according to one of
10 the methods in Claims 1 to 11 can be decoded with the device.

14. Data transmission system comprising a device according to Claim
12 and a device according to Claim 13.